



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: PW4062
 UNIQUE ID NUMBER: 12FW102
 COMBUSTOR: Phase III
 ENGINE TYPE: TF

BYPASS RATIO: 4.6
 PRESSURE RATIO (π_{00}): 31.0
 RATED THRUST (F_{00}) (kN): 275.8

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	17.0	59.8	58.0	10.0
AS % OF ORIGINAL LIMIT	86.5	50.7	56.7	56.0
AS % OF CAEP/2 LIMIT (NO _x)			71.1	
AS % OF CAEP/4 LIMIT (NO _x)			84.0	
AS % OF CAEP/6 LIMIT (NO _x)			95.1	
AS % OF CAEP/8 LIMIT (NO _x)			111.2	

DATA STATUS

- PRE-REGULATION
 x CERTIFICATION
 - REVISED (SEE REMARKS)

TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES
 x DEDICATED ENGINES TO PRODUCTION STANDARD
 - OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
 (ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)
 - OUT OF PRODUCTION (DATE: -)
 - OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER SETTING (%F ₀₀)	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO _x	
TAKE-OFF	100	0.7	2.725	0.08	0.61	34.36	8.5
CLIMB OUT	85	2.2	2.125	0.07	0.50	25.98	6.0
APPROACH	30	4.0	0.718	0.09	1.93	12.17	0.5
IDLE	7	26.0	0.210	10.86	42.61	3.78	0.1
LTO TOTAL FUEL (kg) or EMISSIONS (g)			894	3594	14475	14555	-
NUMBER OF ENGINES				2	2	2	2
NUMBER OF TESTS				4	4	4	4
AVERAGE D _p /F ₀₀ (g/kN) or AVERAGE SN (MAX)				13.0	52.5	52.8	8.5
SIGMA (D _p /F ₀₀ in g/kN, or SN)							
RANGE (D _p /F ₀₀ in g/kN, or SN)							

ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	101.9-102.6
TEMPERATURE (K)	173.2-279.8
ABS HUMIDITY (kg/kg)	0.00219-0.0038

FUEL

SPEC	Jet A
H/C	1.89
AROM (%)	18.6

MANUFACTURER: Pratt & Whitney
 TEST ORGANIZATION: Pratt & Whitney
 TEST LOCATION: P7 Production Test Cell, Middletown, CT
 TEST DATES: 11/03/2012-12/03/2012

NO_x REGULATION PARAGRAPH

	2.3.2 c) (CAEP/4)
x	2.3.2 d) (CAEP/6)
	2.3.2 e) (CAEP/8)

REMARKS

- Data from Report PWA-9720-20 with Phase 3 reduced pressure loss combustor
- Certification in accordance with Part III, Chapter 2, of Amendment 7 of ICAO Annex 16 Vol. II.
- NO_x levels in accordance with Part III, Chapter 2, 2.3.2 d) (CAEP/6)

Compliance with Fuel Venting requirements: x ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)